April 2, 1997
Mr. John P. Cahill
Acting Commissioner
New York State Department
of Environmental Conservation
50 Wolf Road
Albany, New York 12233-3500

Dear Mr. Cahill:

The U.S. Environmental Protection Agency (EPA) is in receipt of the Phase I Total Maximum Daily Loads (TMDLs)/ Waste Load Allocations(WLAs)/Load Allocations (LAs) for 18 New York City Watershed Reservoirs (letter dated January 31, 1997).

The New York State Department of Environmental Conservation (NYSDEC) listed the 19 New York City Watershed Reservoirs as high priority waters on its 1994 and 1996 Section 303(d) lists. These waters were listed as "stressed" or "threatened" and potentially not achieving an applicable water quality standard, specifically the narrative criteria for nutrients, as interpreted by NYSDEC's 20 ug/L phosphorus guidance value, which is applicable to Class AA waters. The primary pollutant of concern is phosphorus. The NYSDEC, the New York City Department of Environmental Protection (NYCDEP), the New York State Department of Health (NYSDOH), and EPA have been working jointly in developing Phase I TMDLs for these reservoirs. The Phase I TMDLs represent one element of a comprehensive watershed protection approach being implemented in the New York City Watershed.

In order to begin addressing the eutrophication problems in the New York City Watershed reservoirs, NYSDEC, NYCDEP, NYSDOH and EPA committed to develop Phase I TMDLs within a short timeframe. Given the time and resource constraints under which Phase I TMDLs were developed, and the complex nature of the water quality problems in the reservoirs, the agencies agreed to proceed with a phased approach. The phased approach is an iterative process that allows existing data and simplified models to be used to establish controls early in the process, while additional data are collected and models are enhanced to re-evaluate the Phase I TMDLs.

The Phase I TMDLs are based on simplified models and existing measured or estimated loading data, which have been calibrated to ambient data. One of the main objectives of the Phase I TMDL analyses was to perform a preliminary evaluation of whether the 19 reservoirs are exceeding their critical loads for phosphorus. For those reservoirs determined to be exceeding their critical loads, WLAs/LAs, reflecting the necessary point and/or nonpoint source reductions, were also developed.

Phase II TMDLs will be developed for all 19 New York City Watershed Reservoirs based on: a revised (as necessary) phosphorus criterion designed to protect the designated best uses of these reservoirs; additional ambient and loading data; and, enhanced water quality models. We anticipate that, in accordance with the schedule set forth in the NYC Watershed Memorandum of Agreement, NYSDEC will develop and submit to EPA, as appropriate, Phase II phosphorus TMDLs by the later of December 1998 or 180 days after NYCDEP submits Phase II TMDL Reservoir Reports to NYSDEC. Additionally, multi-tiered water quality models are being developed by NYCDEP which further assess the complex water quality impacts associated with eutrophication, as well as the fate of other pollutants in the reservoirs. These complex models may first be applied to the Cannonsville Reservoir, during Phase II, and will during Phase III, be applied to all reservoirs in the Catskill-Delaware System.

NYSDEC has developed, public noticed, and submitted to EPA, Phase I TMDLs for 18 of the 19 NYC Watershed Reservoirs. EPA has reviewed all 18 Phase I TMDLs and has concluded that they are technically sound. Based on Phase I TMDL analyses, 8 of the reservoirs exceed their critical loads for phosphorus and require point and/or nonpoint source reductions. EPA has determined that these 8 Phase I TMDLs are consistent with Section 303(d) of the Clean Water Act, 40 CFR §130.7 and EPA guidance on phased TMDLs and are, therefore, approved and should be incorporated into the NYSDEC's current Water Quality Management Plan. A list of the 8 TMDLs/WLAs/LAs approved by EPA is included in Table 1.

Of the remaining 11 reservoirs, the model did not calibrate for the Amawalk Reservoir, therefore, a Phase I TMDL was neither developed nor submitted to EPA. A Phase II TMDL will be developed for the Amawalk Reservoir. The State developed Phase I TMDLs for the remaining 10 reservoirs indicate that the critical loads are not exceeded. Therefore, at this time, EPA is not taking action on these 10 Phase I TMDLs. EPA considers these 10 TMDLs (Table 2) to be submitted by NYSDEC for informational purposes only, pursuant to §303(d)(3) of the Clean Water Act. These 10 reservoirs and the Amawalk Reservoir will remain on the State's 303(d) list and Phase II TMDLs will be developed for all 19 reservoirs. It should be noted that, regardless of the findings of Phase I TMDL modeling, the New York City Watershed Regulations will require point and nonpoint source reductions in all 19 NYC reservoirs. These regulatory reductions will be accomplished, New York City Watershed-wide, through the mandatory implementation of: technology-based phosphorus limits for all point source dischargers; and, agricultural management plans, land acquisition plans and stormwater pollution prevention plans, designed to reduce nonpoint source pollution.

Over the next year, NYSDEC, NYCDEP and EPA will be working to develop Phase II TMDLs and begin implementation of Phase I TMDLs. We look forward to continuing this joint effort in improving water quality in the New York City Watershed.

Sincerely,

Jeanne M. Fox
Regional Administrator

Enclosures

cc: N.G. Kaul, NYSDEC
Michael Principe, NYCDEP
Michael Burke, NYSDOH

TABLE 1: RESERVOIRS FOR WHICH CRITICAL LOAD IS EXCEEDED AND RESULTING TMDLs/WLAs/LAs BEING APPROVED BY EPA

Reservoir	TMDL (kg/yr)[1]

	TMDL	Σ WLAs[2]	ΣLAs	MOS
Croton River System				
Bog Brook	321	28	261	32
East Branch	2,461	389	1,826	246
Middle Branch	797	196	521	80
Croton Falls	2,739	506	1,959	274
Diverting	2,122	232	1,678	212
Muscoot	7,487	1,277	5,461	749
New Croton	9,957	269	8,692	996
Catskill-Delaware River System				
Cannonsville	16,642	1,082	13,916	1,644

Notes:

[1] Typically, nutrient loadings to lakes and reservoirs are expressed in kg/yr. The kg/yr can easily be converted to lbs/day by multiplying kg/yr by 0.006.

[2] After implementation of phosphorus reductions required in watershed regulations for point sources .

TABLE 2: RESERVOIRS WHERE CRITICAL LOAD IS **NOT** EXCEEDED UNDER PHASE I MODELING ANALYSES. TMDLs PROVIDED FOR

INFORMATIONAL PURPOSES ONLY- NO EPA ACTION NECESSARY

Reservoir	TMDL (kg/yr)[1]
Croton River System	
Cross River	1,162
Titicus	982
Boyd's Corner	604
West Branch	2,695
Catskill-Delaware River System	
Kensico	25,805
Neversink	5,372
Pepacton	21,953
Rondout	30,680
Schoharie	10,962
Ashokan:	45,381
West Basin	23,217
East Basin	22,164

Notes: [1] Typically, nutrient loadings to lakes and reservoirs are expressed in kg/yr. The kg/yr can easily be converted to lbs/day by multiplying kg/yr by 0.006.